STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
Honolulu, Hawaii

180-Day Exp. Date: April 1, 2006

March 10, 2006

Board of Land and
Natural Resources
State of Hawaii
Honolulu, Hawaii

REGARDING: Conservation District Use Application (CDUA) LA-3257 for Manele Small Boat Harbor Ferry System Improvements

APPLICANT: Bow Engineers for
Department of Land and Natural Resources- Division of Boating and Ocean Recreation

LANDOWNER: State of Hawaii

LOCATION: Manele Bay, Lanai

TMK: (2) 4-9-017:006

AREA OF USE: 4.6 Acres

AREA OF PARCEL: 18 Acres

SUBZONE: Limited

DESCRIPTION OF AREA AND CURRENT USE:

The proposed project is located at the Manele Bay Small Boat Harbor (MBSBH) on the south coast of Lanai, Manele Bay, Kamao, island of Lanai, TMK: (2) 4-9-017:006. The proposed area for improvements appears to lie within the State Land Use Conservation District, Limited subzone. Submerged Protective subzone Conservation District lands are immediately adjacent to the MBSBH. The 12.5-acre project parcel is owned by the State of Hawaii under the jurisdiction of the Division of Boating and Ocean Recreation **(Exhibit 1, 2 & 3)**.

Surrounding land uses include Hulopoe Beach Park, the Manele Bay Hotel and golf course, and undeveloped lands to the west; an existing siltation basin to the north and east; and the Pacific ocean and harbor facilities to the south.

Historically, the proposed project area has been used as a harbor and fishing area. The MBSBH was set aside for operation and maintenance of a small boat marina and appurtenant facilities by Governor's Executive Order No. 2141 dated June 2, 1964. The existing MBSBH was originally constructed in 1965. The harbor provides small boat slips, a rock groin for the Lanai ferry and chartered vessels, unpaved parking areas, a comfort station, harbor master's office, and boat ramp with a loading dock. A private company (Trilogy) also maintains an office and picnic building on the project site **(Exhibit 4 & 5)**.

Current access to the harbor is via Manele Road and unpaved site roadways. The existing parking lot is an unpaved level area **(Exhibit 6 & 7)**. Most of the site has been previously disturbed and slopes towards the ocean with elevations ranging from 4 to 25 feet mean sea level. No electric services are provided to the MBSBH. Onsite generators provide for harbor electricity needs.

The site's relatively isolated harbor views are limited to ferry and boast passengers entering the harbor and motorists approaching the harbor. Due to the surrounding vegetation and its location on the waterfront, land-based views into the site are limited. Views from the harbor seaward consists of scenic ocean views and views of the Maui silhouette in the distance **(Exhibit 8)**.

There is an existing siltation basin located on the northeastern portion of the project site that collects storm flows and runoff from the adjacent hillside located to the northeast of the active harbor facilities. While the siltation basin helps prevent extensive runoff from mauka portions of the project from entering the harbor, there is no existing drainage system for the parking areas and active harbor facilities, and runoff empties directly into the harbor **(Exhibit 9)**.

The existing project site stormwater drainage system currently consists of sheet flow and percolation. Because the MBSBH is located right at the water's edge and there is currently no existing drainage system, there is no buffering of pollutant release and siltation effects during storm events when runoff empties directly into the harbor. During the rainy season, there is ponding and muddy conditions on the unpaved parking and circulation areas.

There are small areas of landscaping vegetation surrounding the Harbormaster's office and comfort station, and several trees planted over the extent of the site, including monkeypod, banyan, coconut and kiawe trees. The area of the proposed multi-use parking consists of extensive kiawe trees and is located in a predominantly level area of depression approximately 2 feet below surrounding area.

The project site is currently served by an underground cesspool. The U.S. Environmental Protection Agency required that existing large capacity cesspools were to be upgraded or closed by April 5, 2005. Cesspools are a public health and environmental concern.

The existing ferry system at the MBSBH currently serves resident-commuters and tourists traveling between the island of Maui and Lanai. The Expedition ferry operates five daily round trips between the Manele and Lahaina Small Boat Harbors. According to the applicant, ferry facilities at the MBSBH are in disrepair or non-existent. The ferry dock, passenger station, passenger and vehicle queuing areas, unpaved parking lot and access road, drainage, and waste disposal system are considered substandard. In addition, The MBSBH lacks basic amenities, including passenger shelter, utilities, and landscaping **(Exhibit 10 & 11)**.

Affected Environment

The climate of Manele Bay can be characterized as hot and dry. Annual rainfall averages less then 15 inches. The harbor is generally protected from the southerly winds, though high gusting winds can generate surf that comes over the breakwater. The north winds sweep over the mountain behind the harbor and accelerate up to 50 to 65 miles per hour, creating onshore dust conditions and choppy marine conditions.

The soils in the project area are classified as Sand alluvial land and Jaucas sand. The sandy alluvial land is prevalent over most of the proposed project site, and the Jaucas sand soil type is located in the area of the proposed trailer storage parking area. The sandy alluvial land is subject to flooding during the rainy season, with slopes in most places 0 to 5 percent, but in places it is as much as 15 percent. For the Jauca sand, permeability is rapid and runoff is slow with a slight water erosion hazard. In addition, workability is slightly difficult because the soil is loose and lacks stability for use of equipment.

The State of Hawaii has designated the marine communities within the Manele and Hulopoe bay as the Manele Hulope Marine Life Conservation District. These marine water resources are managed by the State DLNR Division of Aquatic Resources **(Exhibit 12).**

The MBSBH is an important recreational facility of residents and visitors to the island. Fishing expeditions and commercial tour boats utilize the area. The bay waters are protected by a breakwall, where local residents fish **(Exhibit 13)**.

The project site consists primarily of active ferry and harbor facilities. Plant species that occur in the project site are kiawe, ilima, monkeypod, banyan, and coconut. Faunal species common to the project area include, but are not limited to, birds, mongooses, and axis deer. No threatened, endangered, or rare flora or fauna were found, encountered, or documented at the project area.

Currently, no native Hawaiian traditional cultural practices are known to exist within the project site. An archeological inventory conducted in 1987 that included the mauka portion of the project site identified three clusters of settlement sites in the Manele Bay area. Due to the close proximity of historic settlement sites to the proposed project area and lack of subsurface testing or data recovery historic sites and/or site remnants may be present in the subsurface deposits of the mauka portion of the proposed project area.

DESCRIPTION OF PROPOSED USE:

The State of Hawaii, Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR), with funding assistance from the Federal Transit Administration (FTA), plans to construct ferry terminal infrastructure improvements at the Manele Small Boat Harbor located in Manele Bay. The proposed $6.5 million, 20% State and 80% Federal cost share infrastructure improvements would replace existing facilities located within the area of the Small Boat Harbor. According to the information presented, the project includes: an additional comfort station; an administrative office; paved access roads and parking areas; American Disabilities Act (ADA) compliant pedestrian walkway along the waterfront; water mains and fire hydrants; a sewage pump station and force main; a vessel sewage pump out facility; telephone utilities;

electrical utilities and streetlights; installation of a fuel line under the concrete pavement from the future fuel storage tank to the ferry dock; covered waiting area; boardwalk improvements; multi-use parking, including boat trailer parking and dry storage area; landscaping; and a mini park **(Exhibit 14, 15, & 16)**.

The proposed improvements within the Conservation District would be located within the existing area of the MBSBH and would replace existing facilities. The existing comfort station would remain, and an additional comfort station would be located adjacent to the ferry loading and unloading area. The project is intended to upgrade the existing ferry facilities and infrastructure of the MBSBH, to provide more efficient and safe transit, and improve facilities to make them compliant with County, State, and Federal regulations.

Drainage

The proposal includes the construction of storm drainage improvements that would redirect a large portion of the stormwater runoff from emptying into the harbor and into drain inlets and silt basins. Due to existing elevation constraints, runoff generated from an area of approximately 58,310 square feet from the roadway along the harbor would drain through culvers directly into the harbor **(Exhibit 17)**.

Water and Wastewater

The extension of water and sewer services would occur from existing facilities serving the adjacent Hulopoe Beach Park. A new, metered 8-inch waterline would be installed to replace the existing 2-inch waterline to provide services to existing and proposed improvements.

A closed-system vessel sewage pump out facility would be located near the harbor slips for use by harbor vessels to dispose of their black water. A proposed force main would transport the wastewater into a manhole that intersects with Manele Road to be transported via gravity flow to an existing pump station and treatment plant. The existing cesspools would be pumped out, backfilled, and abandoned in place in accordance with State Department of Health rules and regulations.

Circulation and Parking

There would be two main circulation routes provided within the harbor; one to provide access for primarily boat launchers and the other for other areas of the boat harbor. Concrete walkways would be located throughout the site to provide access to the various facilities. Curbed ramps and cross-walks would be provided to aid pedestrian traffic. There would be several paved parking areas located throughout the site.

Lighting

All facilities would be lighted for nighttime use. Parking lot areas would be lit with street lamps operated by a timer and would shut off after the last ferry departure and as to be determined by the Harbor Master. Low-level footpath lighting would be used for the harbor sidewalk and surrounding the comfort station and harbor agent's office. The launching ramp would be equipped with a timered light for use by early morning fishermen. Project design would reduce nighttime

glare effects with low level footpath lighting and timered lights. All lighting would be properly shaded to eliminate light trespass and preserve the isolated and dark environment of the Manele Bay area.

Landscaping & Irrigation

Proposed landscaping will be mostly native drought and wind tolerant plants. The proposed landscaping plan also includes the use of bio-swales planted with native drought tolerant grasses for stormwater collection adjacent to building and parking area. Following construction, vegetative cover and paving over areas that were previously exposed dirt would reduce the potential for sediment from stormwater runoff form entering the harbor. In addition, the proposed onsite percolation and catch basin drainage system, bio-swales, silt basins, dry wells, and existing undisturbed areas would function to trap stormwater and sediment before entering the harbor **(Exhibit 18 & 19)**.

Maintenance Easement

The U.S. Army Corps of Engineers (Corps), Honolulu District, requires a permanent easement at the MBSBH for a Contractor's Work and Operation Area (CWOA) and dewatering site for maintenance dredging for future maintenance work at the harbor. As part of the Local Cooperation Agreement, executed between the Corps and the State, the State agreed to provide all lands, easements, and rights-of-way for subsequent maintenance of the MBSBH. The proposed project includes a CWOA and dewatering area of approximately 1-acre. The dewatering site would be under laid with "grass-pave" soil stabilizing product and finished with grass. An irrigation system would be installed under the "grass-pave." This would allow dewatering without distress to the area.

Implementation of the proposed action would result in the clearing, grubbing, grading of approximately 8 acres, and would include 13,420 cubic yards of cut and 9,380cubic yards of fill. Excavated soil would be used for fill where appropriate. According to the applicant, all grading operations would be conducted in compliance with dust and erosion control requirement of Maui County. Engineering measures to control soil erosion and storm runoff would be implemented by the contractor during construction. Maui County Code will regulate grading and construction plans for consistency, good engineering practices and best management practices. A National Pollutant Discharge Elimination System (NPDES) permit for construction is required.

A qualified archaeological monitor shall be present during all ground-altering activities located in the mauka portion of the proposed project area in order to document any historic properties which may be encountered during the proposed undertaking and to provide mitigation measures as necessary. An acceptable archaeological monitoring plan shall be submitted to the State Historic Preservation Division for review, prior to the commencement of any ground-altering activities.

There may be short-term potential adverse impacts to air quality, water quality, and noise during construction.

The proposed ferry system improvements would include additional buildings and features that would result in a more substantially developed facility that would be considered common and

appropriate to a ferry system. The construction of the ferry system improvements and landscaping would improve the overall visual character of the project site. Landscaping and sidewalks along the harbor docks would provide a pedestrian-friendly appearance. While paved roadways and parking areas may result in a more developed aesthetic, the existing mud and dust conditions at the project site would be eliminated.

PROJECT ALTERNATIVES:

No Action:

The existing facilities would remain in a substandard state. The facilities would not be noncompliant with County of Maui, State, and Federal rules and regulations.

Reduced Paved Area Alternative

This alternative would result in a reduced area of paved impervious surfaces than the proposed action. However, this alternative would not address community comments in regards to improve parking conditions and safety for resident commuters and tourist.

SUMMARY OF COMMENTS:

The Office of Conservation and Coastal Lands referred the application to the following agencies for review and comment: the State: Department of Land and Natural Resource's Divisions of Aquatic Resources, Engineering, Maui Land and Historic Preservation; the Department of Transportation-Harbors Division; Office of Hawaiian Affairs; the Department of Health and the Office of Environmental Quality Control; the County of Maui's Planning Department and Lanai Planning Commission; and Castle & Cooke Resorts, LLC. In addition, this application was also sent to the nearest public library, the Lanai State Public Library, to make this information readily available to those who may wish to review it.

STATE OF HAWAII:

DEPARTMENT OF LAND AND NATURAL RESOURCES:

Aquatic Resources

We look forward to the proposed harbor improvements and recommend the public be informed of any construction activities, which may temporarily displace fishing in the fisheries management areas. Comments provided for the environmental assessment remain applicable.

Engineering

We confirm that there is no flood insurance map or flood hazard classification for the project area since the Federal Emergency Management Agency has not prepared a Flood Insurance Rate Map for the island of Lanai.

Maui District Land Office

No comment

Historic Preservation

A qualified archaeological monitor shall be present during all ground-altering activities conducted in the project area in order to document any historic properties that may be encountered during the proposed undertaking and to provide mitigation measures as necessary. An acceptable archaeological monitoring plan will need to be submitted to the State Historic Preservation (SHP) for review, prior to the commencement of any ground-altering activities. SHP's Maui and Oahu offices shall be notified via facsimile upon the on-set and completion of the proposed undertaking.

Applicant's Response

A sub-consultant is in the process of preparing the requested monitoring plan that will be submitted to SHP for review. A qualified archaeological monitor for the project will be provided. SHP will be notified regarding the project schedule as requested.

Office of Hawaiian Affairs

A site visit conducted on October 27, 2005 noted that Site 157 (heiau) contains a pohaku that is still upright, meaning that the site is in fair to good condition, despite some natural collapse of walls. There is also evidence of a habitation site. Due to the proximity of these sites to each other and to the proposed project area, OHA strongly recommends archaeological monitoring during all ground disturbances, because this area appears to hold much cultural and historical value. OHA urges that there be no data recovery of these sites in order to better preserve them, and requests that a Preservation Plan be prepared for sites 157 and 1525. At a minimum, a substantial buffer should be placed around these and other prominent cultural sites in the project area to protect them from the public.

Applicant's Response

A qualified archaeological monitor will be present during ground-altering activities and/or in accordance with the approved archaeological monitoring plan. Site 157 is on private land 300 feet from any proposed construction activities. A large siltation basin and rough terrain separates it from the proposed parking lot that should discourage tourists from visiting the site. Site 1525 is situated on private land adjacent to the proposed project. Access to this site will be restricted by an earthen berm that will be constructed under the proposed project. The site is located within a kiawe thicket, which should also discourage tourists from visiting the site.

ANALYSIS:

Following review and acceptance for processing, the Department has determined by correspondence dated October 6, 2005 that:

1. The proposed use is an identified land use in the Conservation District, according to Chapter 13-5, Hawaii Administrative Rules (HAR), Section 13-5-22, P-6, PUBLIC PURPOSE USE, D-1, land uses undertaken by the State of Hawaii or the counties to fulfill a mandated governmental function, activity, or service for public benefit and in accordance with public policy and the purpose of the conservation district. Such land uses may include transportation systems, water systems, communications systems and recreation facilities. Please be advised, however, that this finding does not constitute approval of the proposal;

2. A public hearing will not be required pursuant to HAR, Section 13-5-40; and

3. In conformance with Chapter 343, Hawaii Revised Statutes (HRS), as amended, and Chapter 11-200, HAR, the Final Environmental Assessment (FEA) and a Finding of No Significant Impact (FONSI) to the environment was submitted to the Office of Environmental Quality Control (OEQC), and was published in the August 8, 2005 edition of OEQC's Environmental Notice.

According to the applicant, project discussions took place at community meetings held at the Lanai Elementary School Library on February 19, 2004, on March 16, 2005 at the Lanai Planning Commission Meeting and again at the April 20, 2005 meeting. Comments generated at these meetings have been included in the Draft Environmental Assessment.

The following discussion evaluates the merits of the proposed land use by applying the criteria established in section 13-5-30(c) HAR:

The Proposed Land Use Is Consistent With The Purpose Of The Conservation District:

The purpose of the Conservation District is to regulate land use for the purpose of conserving, protecting, and preserving the important natural resources of the state through appropriate management and use to promote their long-term sustainability and the public health, safety and welfare.

The Manele Small Boat Harbor is used for various recreational and commercial boating activities. The proposed action would improve existing ferry facilities and infrastructure at the Manele Small Boat Harbor to provide a more efficient, hospitable and safer transit system for resident commuters and tourists.

The Proposed Land Use Is Consistent With The Objectives Of the Limited Subzone:

The objective of the Limited subzone is to limit uses where natural conditions suggest constraints on human activities. The proposed use is an identified land use in the Protective and Limited subzone pursuant to the Hawaii Administrative Rules (HAR), §13-5-22, P-6, PUBLIC PURPOSE USE, D-1, land uses undertaken by the State of Hawaii or the counties to fulfill a mandated governmental function, activity, or service for public benefit and in accordance with public policy and the purpose of the conservation district. Such land uses may include transportation systems, water systems, communications systems and recreation facilities.

The proposed use is to repair, renovated and update existing facilities for an established use of boating and ocean recreation. The applicant's use of best management construction practices and permit compliance seek to protect the resources present.

The Proposed Land Use Complies With The Objectives And Guidelines Contained In Chapter 205A, HRS, Entitled "Coastal Zone Management" Where Applicable:

Issuance of a Special Management Area (SMA) Use Permit is based on a development proposal's consistency with the objectives, polices and review guidelines specified in the Coastal Zone Management Program. On February 15, 2006, the Lanai Planning Commission approved a Special Management Area (SMA) Use Permit for the proposed project.

The Proposed Land Use Will Not Cause Substantial Adverse Impact to Existing Natural Resources Within the Surrounding Area, Community or Region:

The proposed use is a public purpose use that renovates, updates and brings an existing facility up to compliance. Federal, State and County agency review, compliance and permits will insure that the proposed land use will not cause substantial adverse impacts to existing natural resources within the surrounding area, community or region.

The Proposed Land Use, Including Buildings, Structures, And Facilities, Shall Be Compatible With The Locality And Surrounding Areas, And Appropriate To The Physical Conditions And Capabilities Of The Specific Parcel Or Parcels:

The proposed use would improve existing harbor facilities and infrastructure at Manele Bay.

The Existing Physical And Environmental Aspects Of The Land, Such As Natural Beauty And Open Space Characteristics, Will Be Preserved Or Improved Upon, Whichever Is Applicable:

The proposed use would improve the overall visual character of the project site and would be consistent with the existing uses of the area. Project elements will preserve or improve upon the existing physical and environmental aspects of the land.

Subdivision of Land Will Not Be Utilized to Increase the Intensity of Land Uses in the Conservation District:

The proposed land use does not include the subdivision of the underlying parcel.

The Proposed Land Use Will Not Be Materially Detrimental to the Public Health, Safety, and Welfare:

Project components such as the large capacity cesspool closure and private sewereage service, vessel sewage pump out facility, improved water system and runoff and mud mitigation may increase the public health, safety and welfare. Harbor improvements will bring the area into compliance with Federal, State and County codes.

DISCUSSION:

Although the improvements are proposed within the Limited subzone of the Conservation District, adjacent submerged lands lie within the Protective subzone of the Conservation District and within a Marine Life Conservation District. A harbor and the human impact that comes with it is not a compatible use of a marine conservation district. Exhibit 4 clearly illustrates the impact of harbor activities on the submerged Protective subzone lands. However, the Manele Boat Harbor is an established use in need of improvements to increase provisions for public transportation of people, goods and services.

Although harbor use may be incompatible with the protected marine conservation district, the proposed improvements will contribute to mitigating potential adverse effects of harbor activities. The project is intended to upgrade the existing ferry facilities and infrastructure of the MBSBH, to provide more efficient and safe transit, and improve facilities to make them compliant with County, State, and Federal regulations. Improved drainage, bioswales, and sewerage facilities will most likely improve the natural environment of the area.

The presence of the required U.S. Army Corps of Engineers (Corps), permanent easement at the MBSBH for a Contractor's Work and Operation Area (CWOA) and dewatering site for maintenance dredging for future maintenance work at the harbor will help to ensure maintenance of this facility.

According to the applicant, all grading operations would be conducted in compliance with dust and erosion control requirement of Maui County. The contractor would implement engineering measures to control soil erosion and storm runoff during construction. Maui County Code will regulate grading and construction plans for consistency, good engineering practices and best management practices. A National Pollutant Discharge Elimination System (NPDES) permit for construction is required. A qualified archaeological monitor will be present during ground-altering activities and/or in accordance with the approved archaeological monitoring plan.

STAFF RECOMMENDATION:

That the Board of Land and Natural Resources approve this Conservation District Use Application (CDUA) LA-3257 for Manele Small Boat Harbor Ferry System Improvements, located at Manele Bay, Lanai, TMK:(2) 4-9-017:006, subject to the following conditions:

1. The applicant shall comply with all applicable statutes, ordinances, rules, and regulations of the federal, state, and county governments, and applicable parts of Chapter 13-5, Hawaii Administrative Rules (HAR), including the standard conditions listed in 13-5-42, HAR;

2. The applicant shall comply with all applicable department of health administrative rules;

3. Before proceeding with any work authorized by the department or the board, the applicant shall submit four copies of the construction plans and specifications to the chairperson or his authorized representative for approval for consistency with the

conditions of the permit and the declarations set forth in the permit application. Three of the copies will be returned to the applicant. Plan approval by the chairperson does not constitute approval required from other agencies;

4. Any work or construction to be done on the land shall be initiated within one year of the approval of such use, in accordance with construction plans that have been approved by the Department; further, all work and construction must be completed within three years of the approval. The applicant shall notify the Office of Conservation and Coastal Lands in writing prior to the initiation, and upon completion, of the project;

5. All representations relative to mitigation set forth in the accepted environmental assessment or impact statement for the proposed use are incorporated as conditions of the permit;

6. In issuing the permit, the department and board have relied on the information and data which the applicant has provided in connection with the permit application. If, subsequent to the issuance of the permit such information and data prove to be false, incomplete, or inaccurate, this permit may be modified, suspended, or revoked, in whole or in part, and the department may, in addition, institute appropriate legal proceedings;

7. When provided or required, potable water supply and sanitation facilities shall have the approval of the department of health and the board of water supply;

8. Provisions for access, parking, drainage, fire protection, safety, signs, lighting, and changes on the landscape shall be provided;

9. Where any interference, nuisance, or harm maybe caused, or hazard established by the use, the applicant shall be required to take measures to minimize or eliminate the interference, nuisance, harm, or hazard;

10. Obstruction of public roads, trails, and pathways shall be minimized. If obstruction is unavoidable, the applicant shall provide roads, trails, or pathways acceptable to the department;

11. During construction, appropriate mitigation measures shall be implemented to minimize impacts to off-site roadways, utilities, and public facilities;

12. Cleared areas shall be revegetated within thirty days unless otherwise provided for in a plan on file with and approved by the department;

13. The applicant shall implement mitigation measures to prevent construction materials, petroleum products, and other potential contaminants from falling, blowing, or leaching into the aquatic environment;

14. The approved work shall not hamper, impede or otherwise limit the exercise of traditional, customary or religious practices in the immediate area, to the extent such practices are provided for by the constitution of the state of Hawaii, and by Hawaii statutory and case law;

15. The applicant shall obtain all necessary federal, state and county approvals for the proposed project and shall abide by all conditions of approval;

16. The applicant shall have a qualified archaeological monitor present during ground altering activities and/or in accordance with a State Historic Preservation approved archaeological monitoring plan;

17. Should historic remains such as artifacts, burials or concentration of charcoal be encountered during construction activities, work shall cease immediately in the vicinity of the find, and the find shall be protected from further damage. The contractor shall immediately contact the State Historic Preservation Division (692-8015), which will assess the significance of the find and recommend an appropriate mitigation measure, if necessary;

18. Other terms and conditions as prescribed by the chairperson; and

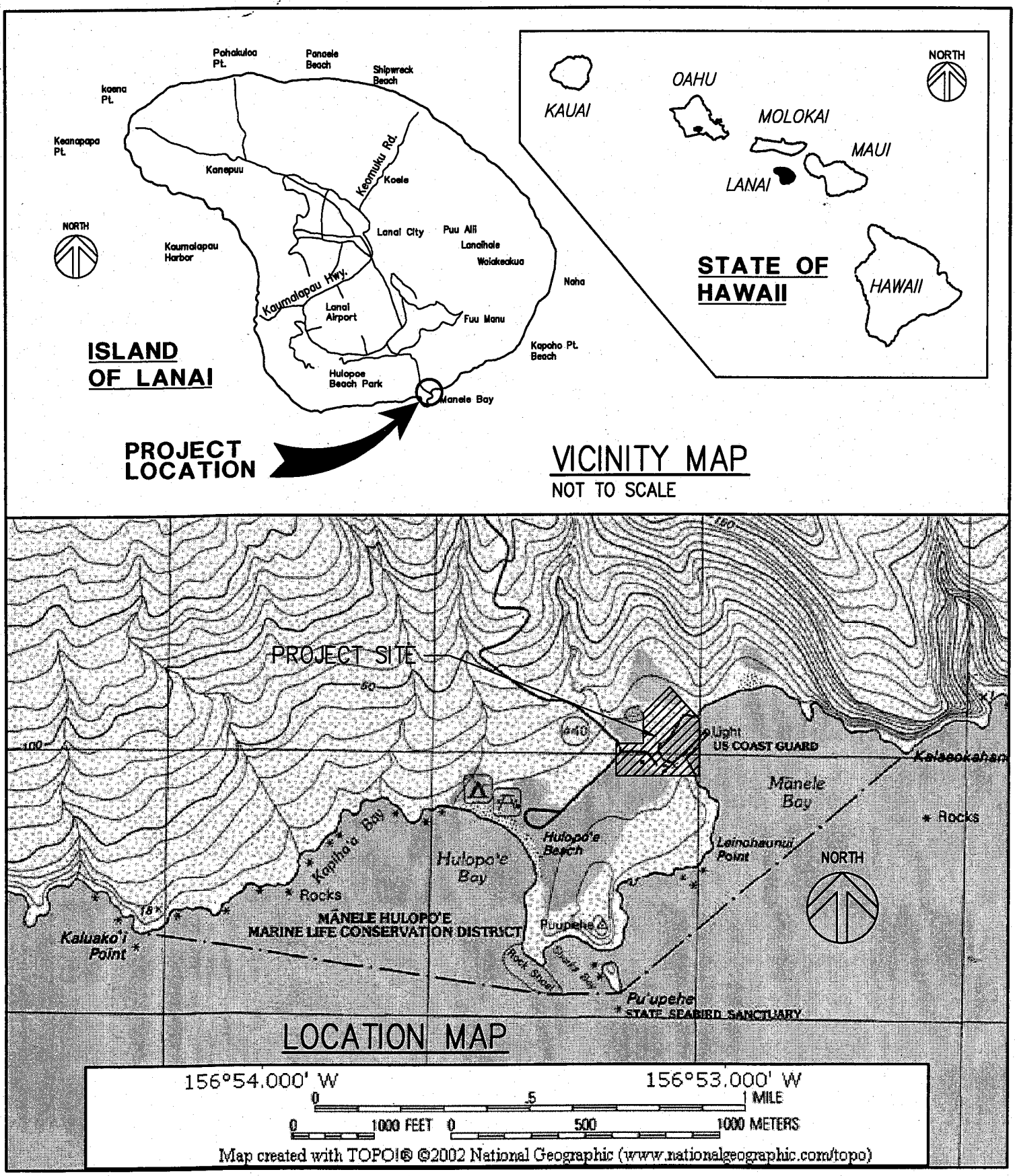
19. Failure to comply with any of these conditions shall render this permit void.

Respectfully submitted,

K. Tiger Mills, Staff Planner
Office of Conservation and Coastal Lands

Approved for submittal:

PETER T. YOUNG, Chairperson
Board of Land and Natural Resources



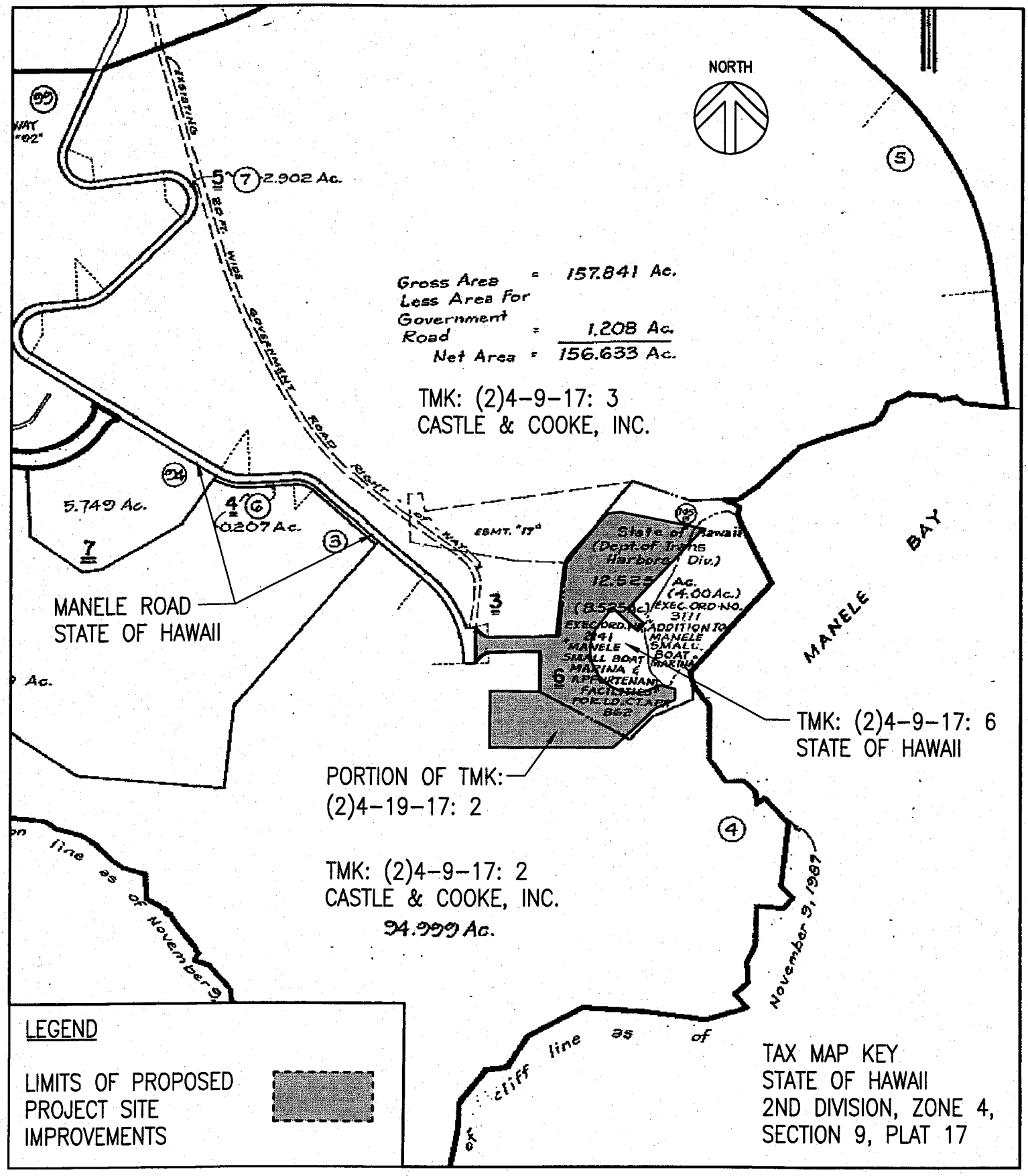
F-1

MANELE SMALL BOAT HARBOR FERRY SYSTEM IMPROVEMENTS
ENVIRONMENTAL ASSESSMENT
FOR THE DEPARTMENT OF LAND AND NATURAL RESOURCES

VICINITY AND LOCATION MAP

Bow Engineering & Development, Inc.
CIVIL ENGINEERS PLANNERS
1953 S. BERETANIA STREET, PH-A
HONOLULU, HI.I 96826
Telephone (808) 941-8853
Telecopier (808) 945-9299
Email: bbow@bowengineering.com

EXHIBIT 1



F-2

MANELE SMALL BOAT HARBOR FERRY SYSTEM IMPROVEMENTS
ENVIRONMENTAL ASSESSMENT
FOR THE DEPARTMENT OF LAND AND NATURAL RESOURCES

LANDOWNERSHIP MAP

Bow Engineering & Development, Inc.
CIVIL ENGINEERS PLANNERS
1953 S. BERETANIA STREET, PH-A Telephone (808) 941-8853
HONOLULU, HI 96826 Telecopier (808) 945-9299
Email: bbow@bowengineering.com

EXHIBIT 2

EXHIBIT 3

MĀNELE SMALL BOAT HARBOR FERRY SYSTEM IMPROVEMENTS PHOTOGRAPHIC ANALYSIS

PREPARED FOR

DEPARTMENT OF LAND AND NATURAL RESOURCES, OFFICE OF CONSERVATION AND COASTAL LANDS

In Support of
Conservation District Use Application (CDUA)

Photo 1. Aerial view of the Mānele Small Boat Harbor project area. The breakwall represents the certified shoreline in the project area.

EXHIBIT 4

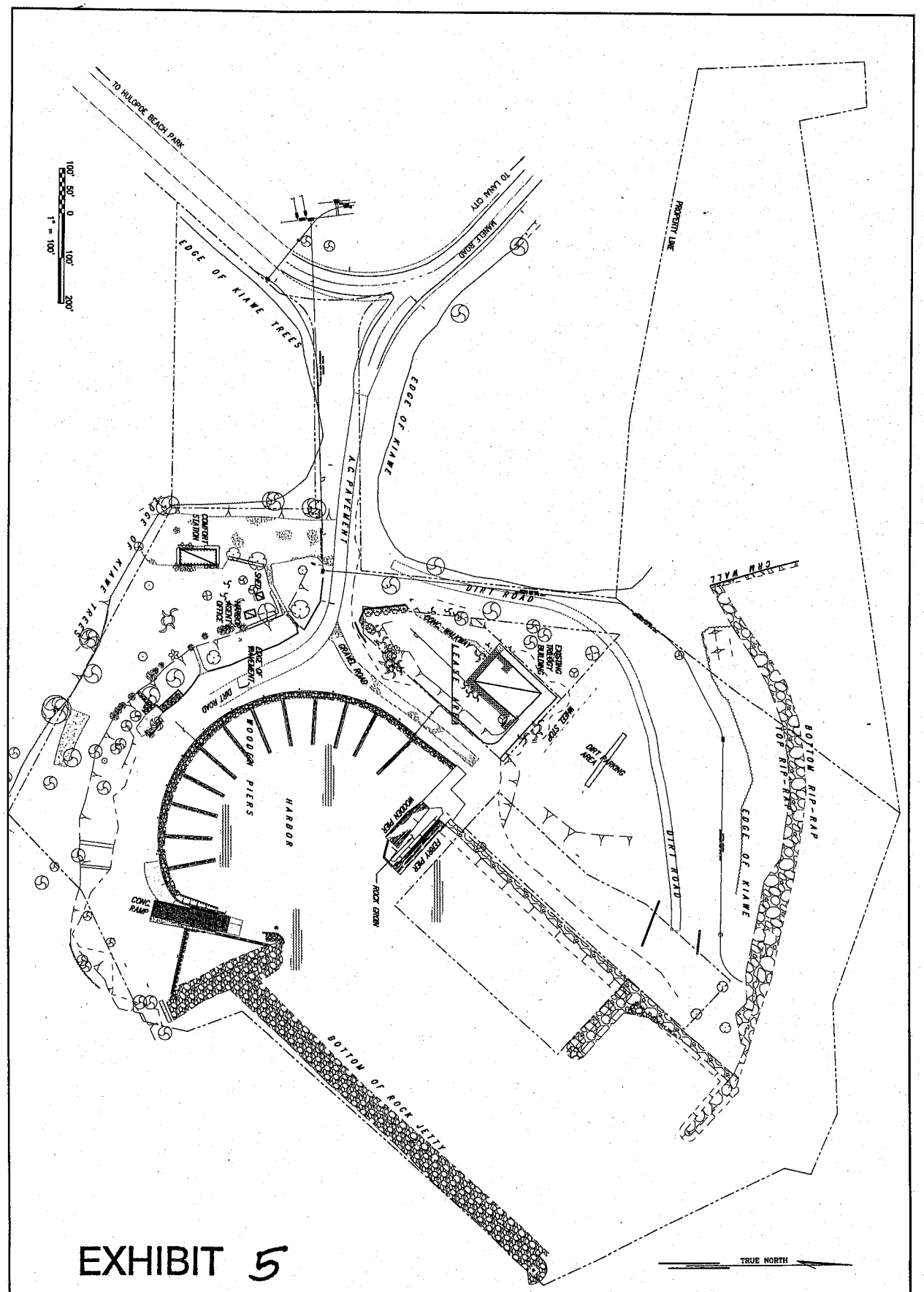


EXHIBIT 5

F-3

MANELE SMALL BOAT HARBOR FERRY SYSTEM IMPROVEMENTS
ENVIRONMENTAL ASSESSMENT FOR
DEPARTMENT OF LAND AND NATURAL RESOURCES

EXISTING CONDITION

Bow Engineering & Development, Inc.
CIVIL ENGINEERS PLANNERS
1953 S. BERETANIA STREET, PH-A HONOLULU, HI.I 96826
Telephone (808) 941-8853
Telecopier (808) 945-9299
Email: bbow@bowengineering.com

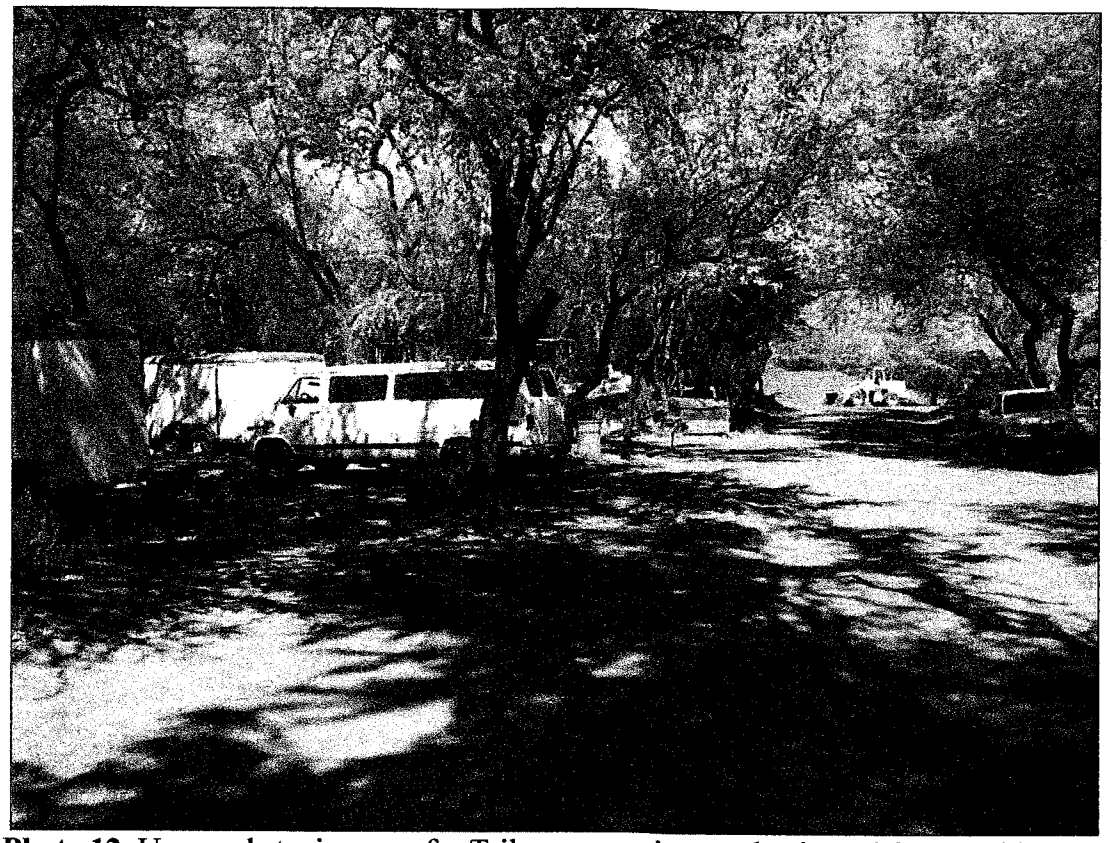


Photo 12. Unpaved staging area for Trilogy operations and exit road from parking area.

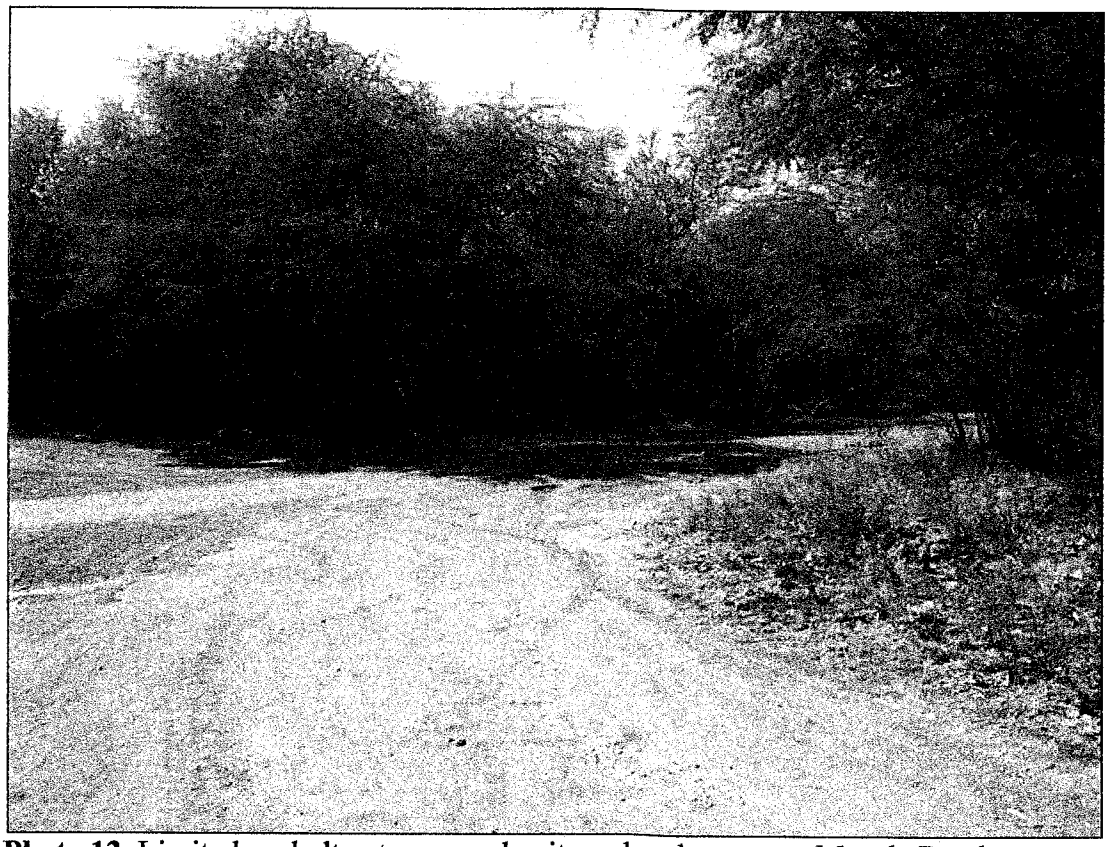


Photo 13. Limited asphalt entrance and exit road and access to Mānele Road.

EXHIBIT 6

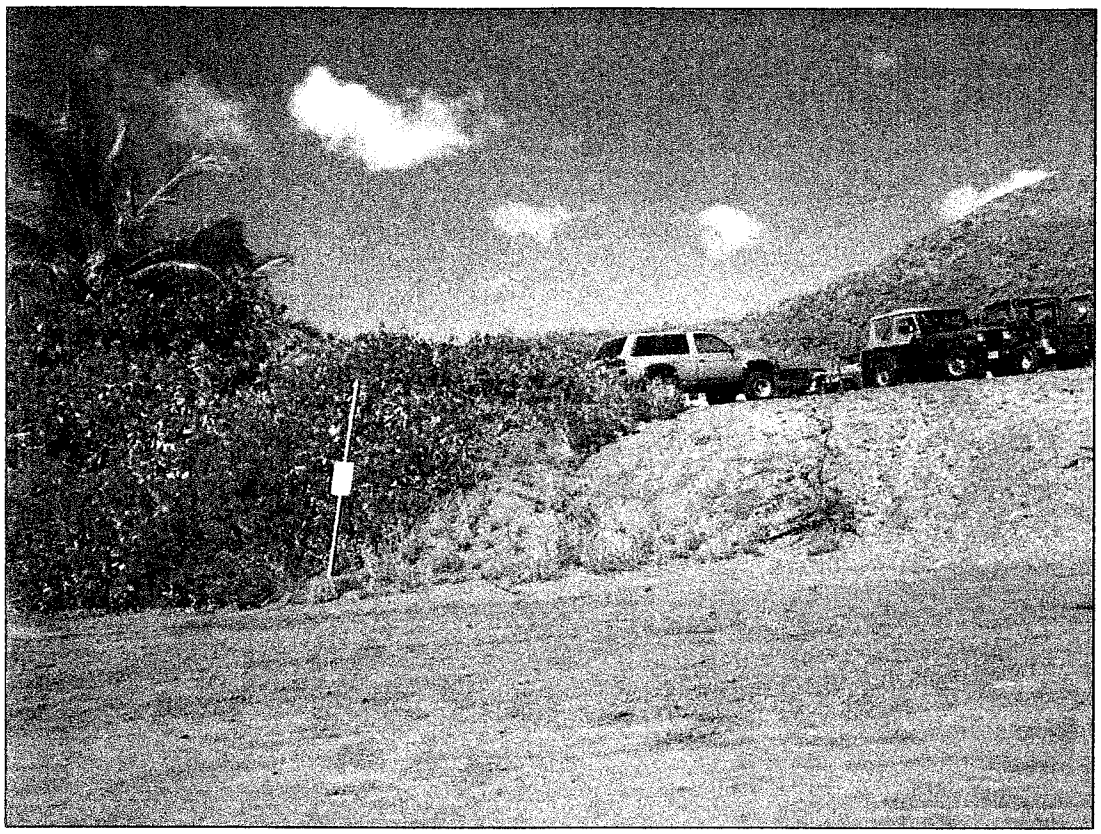


Photo 10. View of elevated parking area from ferry loading and unloading area.

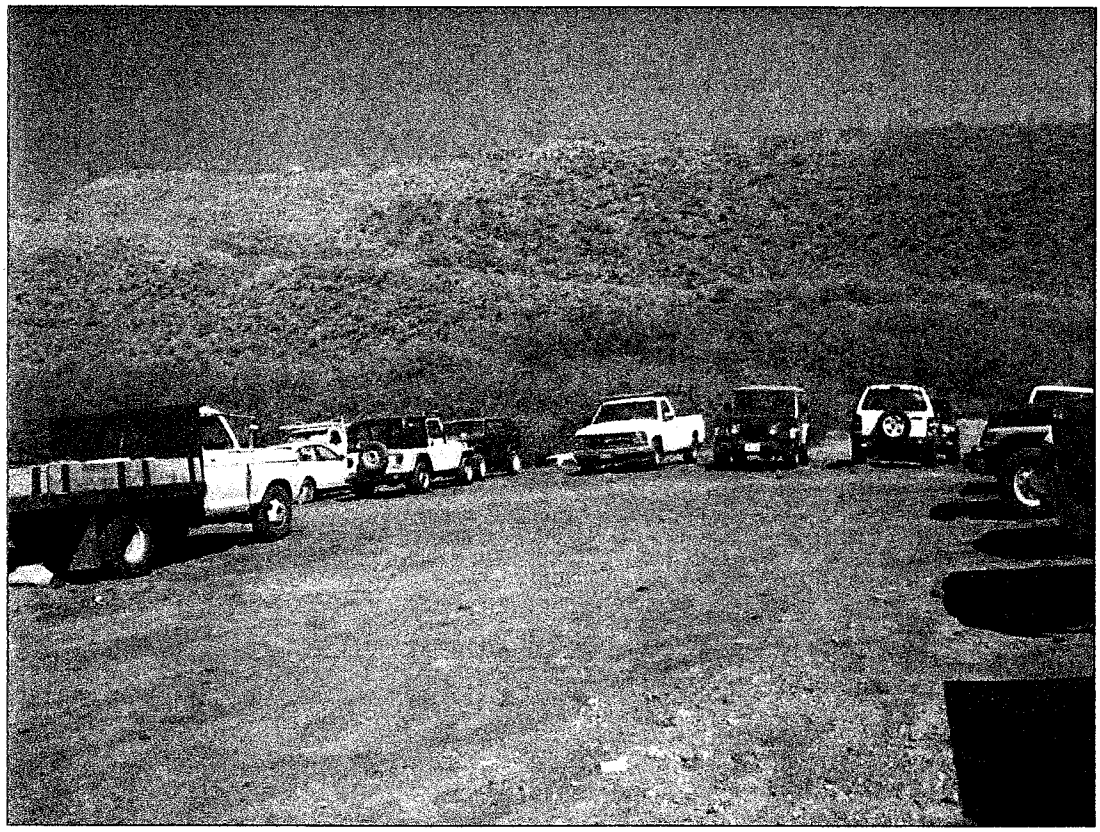


Photo 11. Unpaved parking area. During heavy storms, ponding and mud conditions occur.

EXHIBIT 7

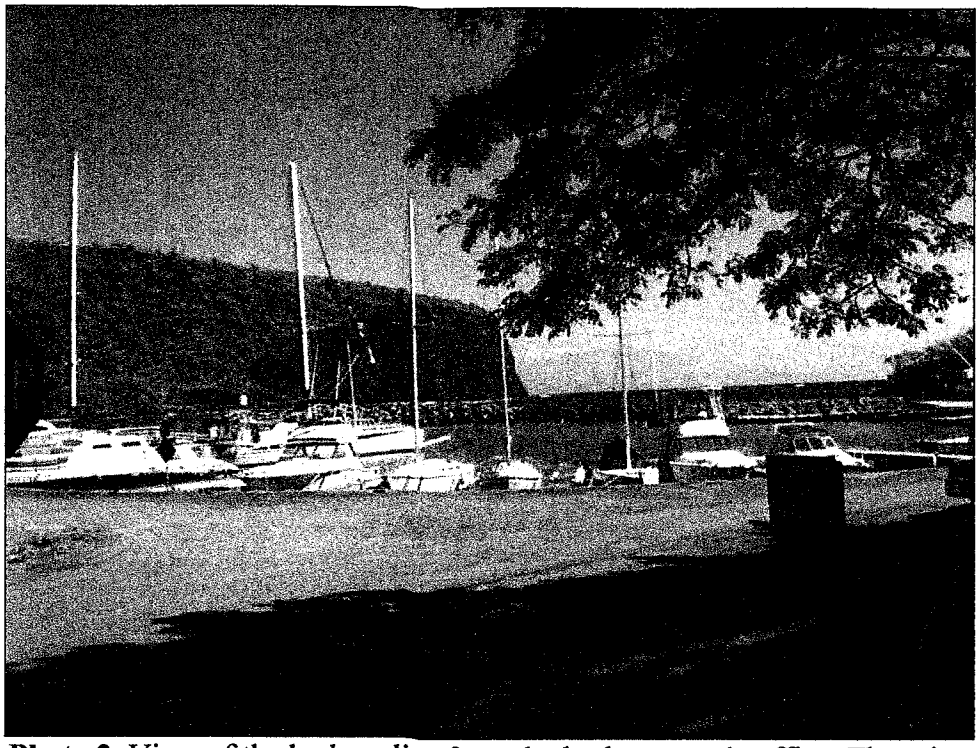


Photo 2. View of the harbor slips from the harbor agent's office. There is some remaining asphalt on the entrance roadway. Views of Maui are visible in the distance.

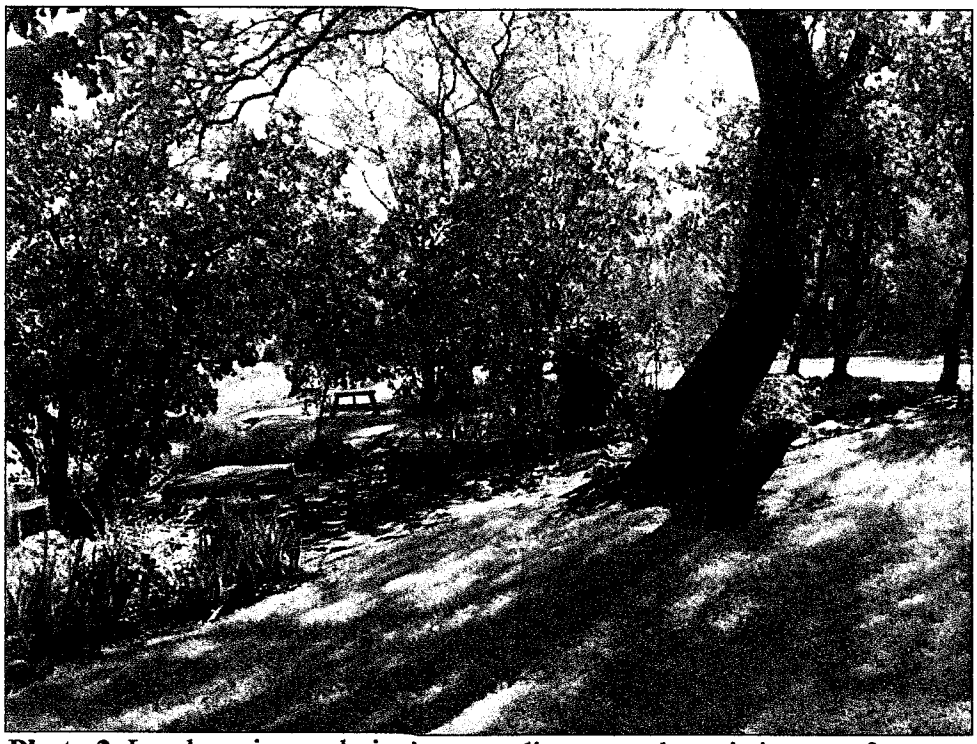


Photo 3. Landscaping and picnic area adjacent to the existing comfort station and harbor agent's office. According to the Harbor Master, most of the landscaping was planted by the Community.

EXHIBIT 8

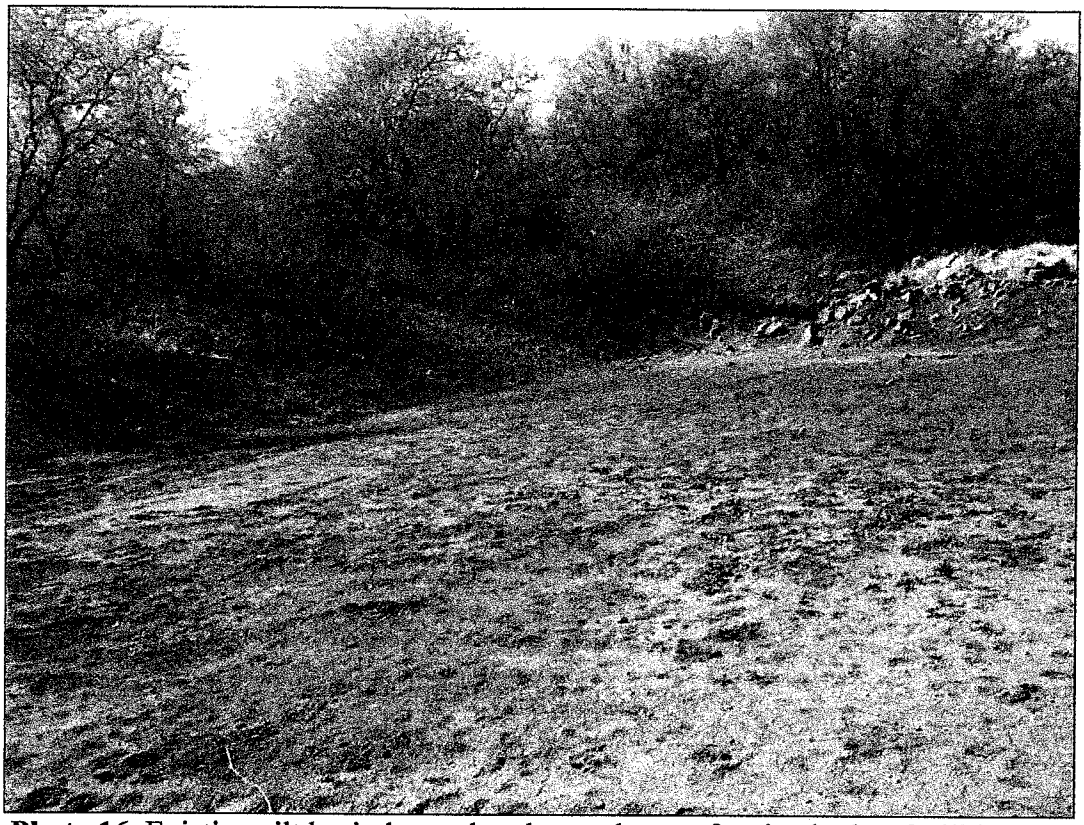


Photo 16. Existing silt basin located to the northeast of active harbor facilities.

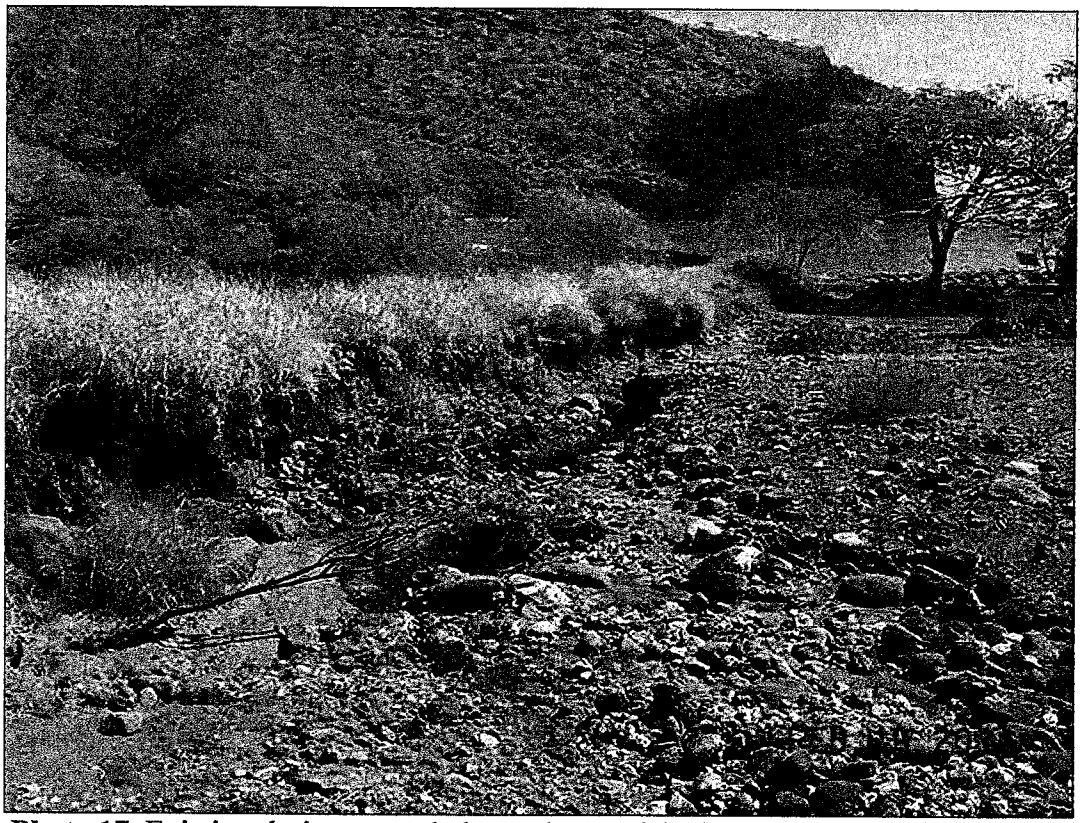


Photo 17. Existing drainage swale located east of the harbor facilities. Overflow from existing silt basin shown in Photo 16.

EXHIBIT 9

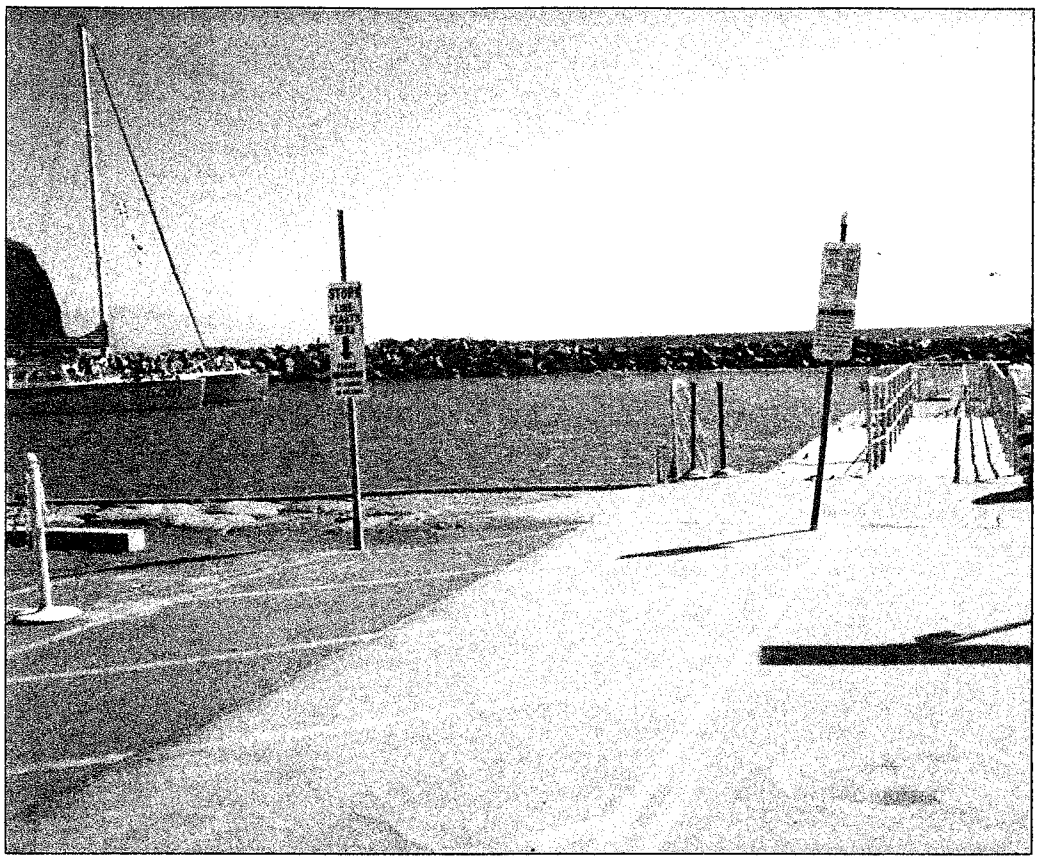


Photo 4. Existing ferry loading area and harbor breakwall and shoreline.

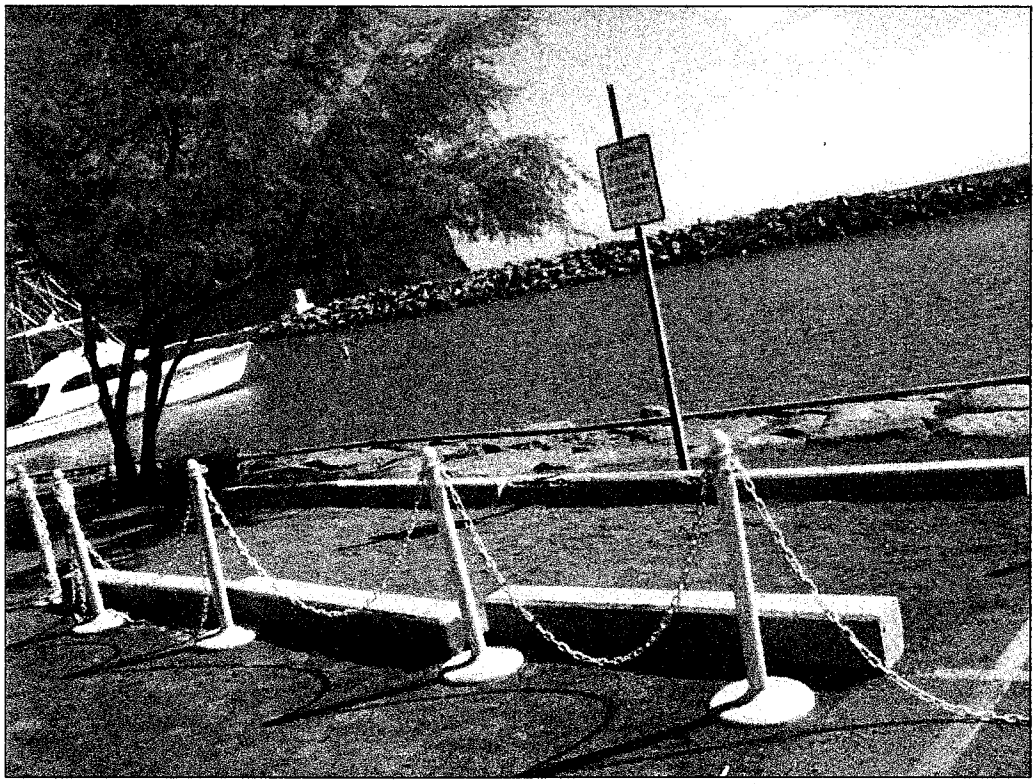


Photo 5. Existing ferry waiting area and harbor breakwall and shoreline. There are no existing covered waiting areas for shade relief, except for the small bench located underneath the harbor-side tree.

EXHIBIT 10

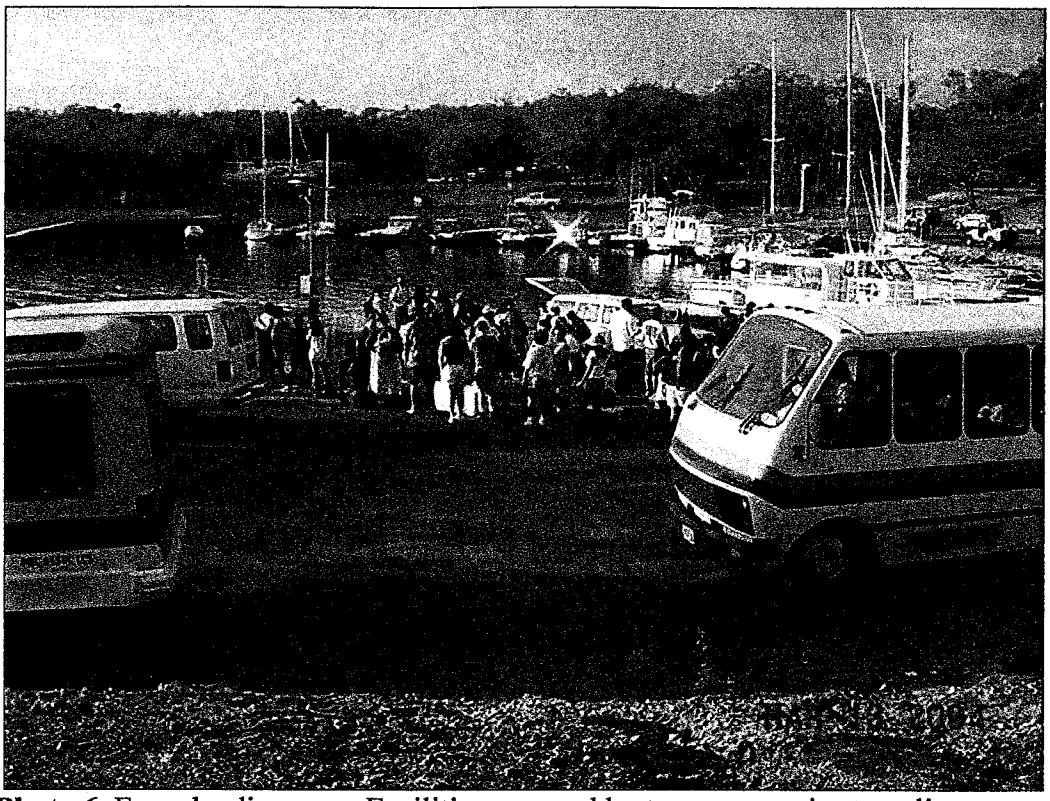
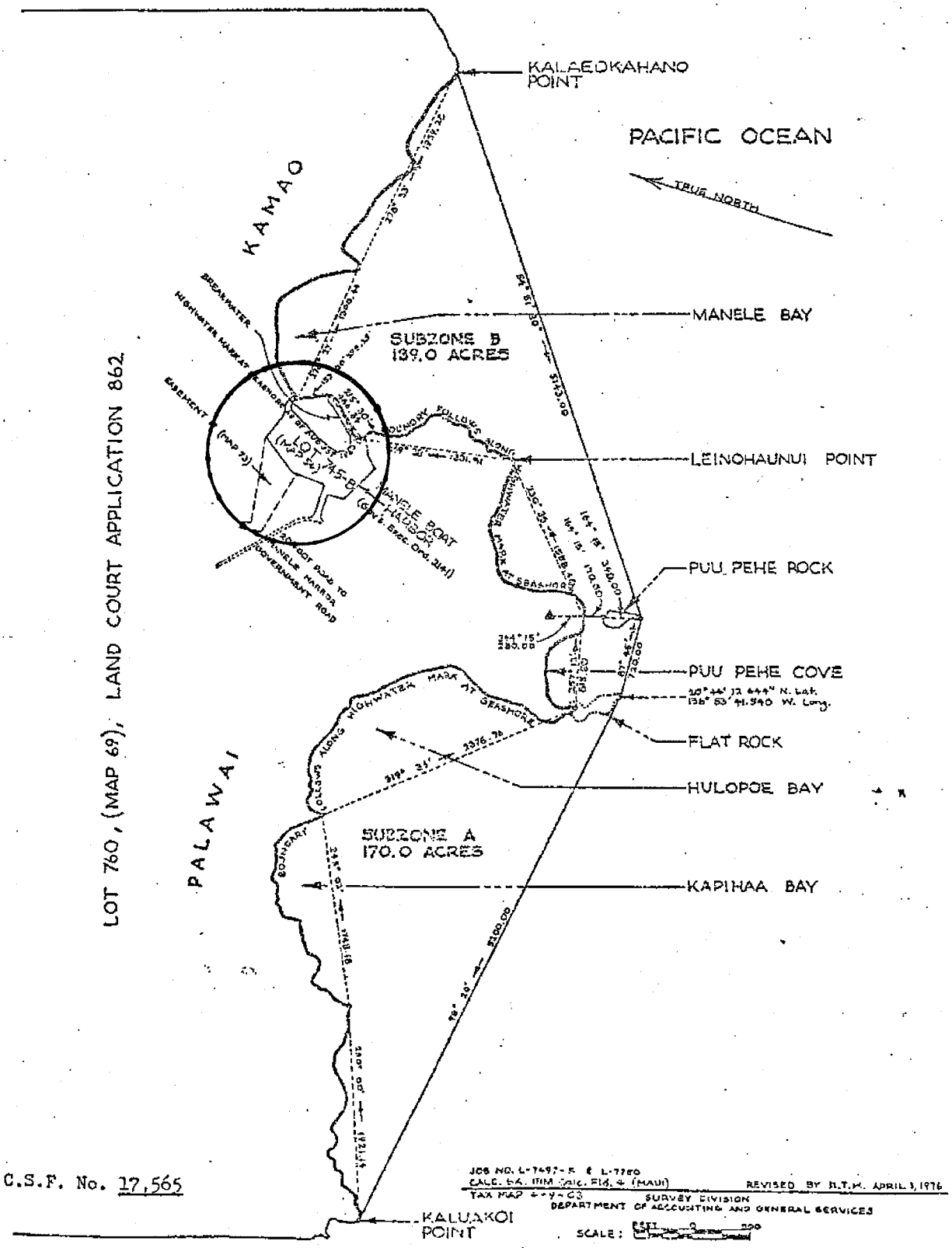


Photo 6. Ferry loading area. Facilities are used by tour companies traveling between the island of Maui and Lāna'i. During heavy rains, ponding and mud conditions occur over the dirt roadway.

Photo 7. Existing boat ramp. As shown in the photograph, several boats are parked in undesignated parking areas.

EXHIBIT 11

MAP OF THE MANELE-HULOPOE MARINE LIFE CONSERVATION DISTRICT, LANAI 4/1/76



C.S.F. No. 17,565

JOB NO. L-7497-5 & L-7760
CALC. BA. IRIM (sic. FIG. 4 (MAUI)
TAX MAP 4-4-4-03
REVISED BY D.L.N.H. APRIL 3, 1976
SURVEY DIVISION
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES

EXHIBIT 12

Photo 18. View of harbor breakwall from adjacent cliffs located south of the project area.

EXHIBIT 13

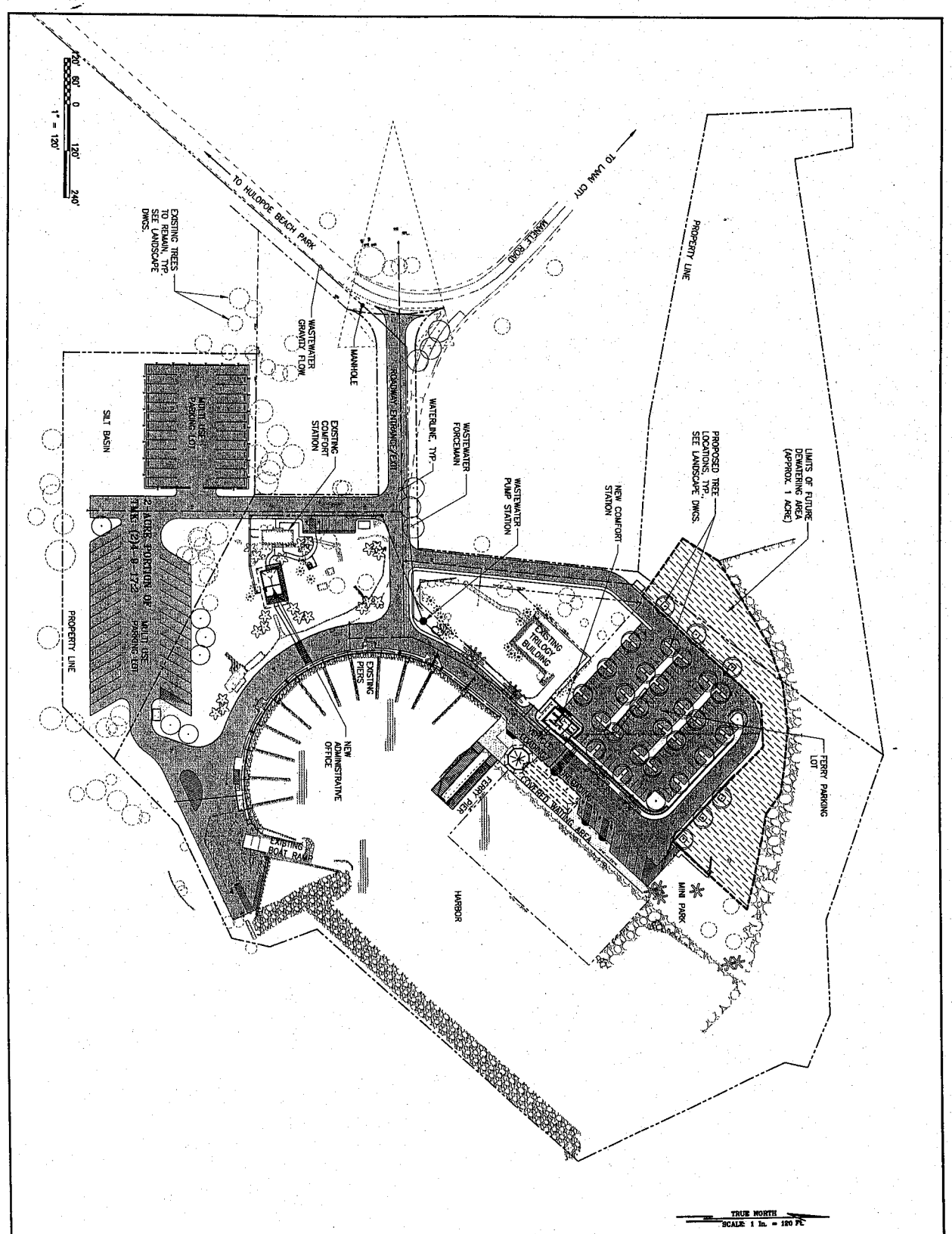
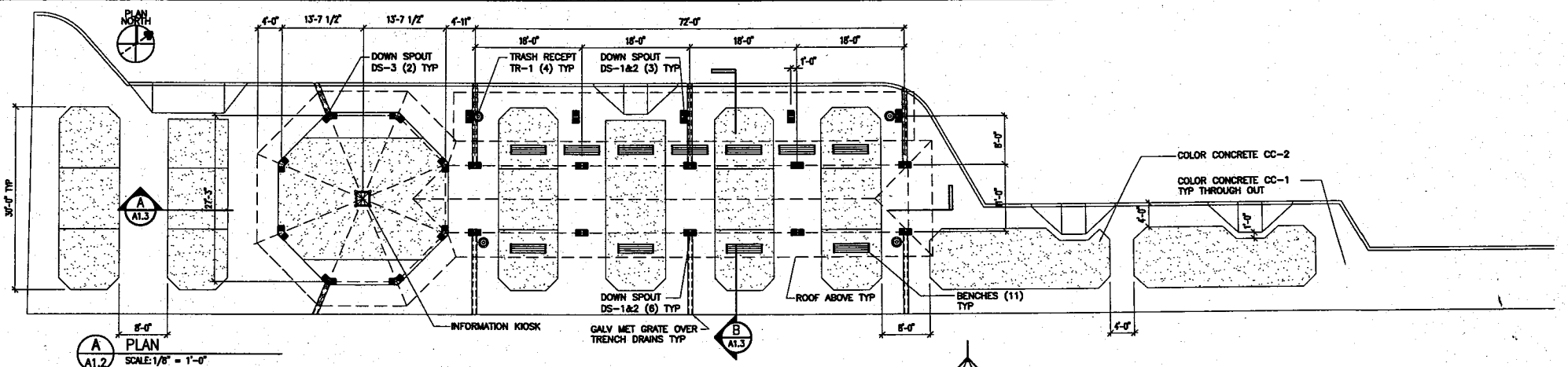


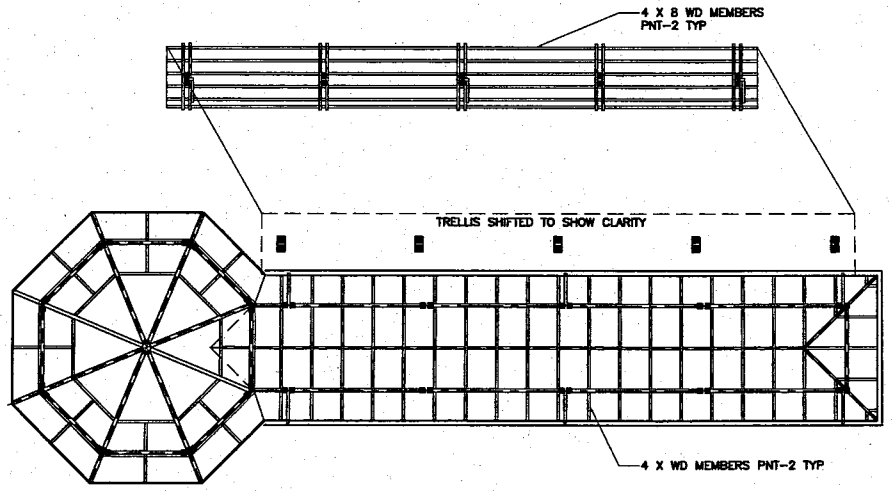
EXHIBIT 14

F-4	MANELE SMALL BOAT HARBOR FERRY SYSTEM IMPROVEMENTS ENVIRONMENTAL ASSESSMENT FOR DEPARTMENT OF LAND AND NATURAL RESOURCES PROPOSED SITE PLAN	Bow Engineering & Development, Inc. CIVIL ENGINEERS PLANNERS 1953 S. BERETANIA STREET, PH-A HONOLULU, HI 96826 Telephone (808) 941-8853 Telecopier (808) 945-9299 Email: bbow@bowengineering.com

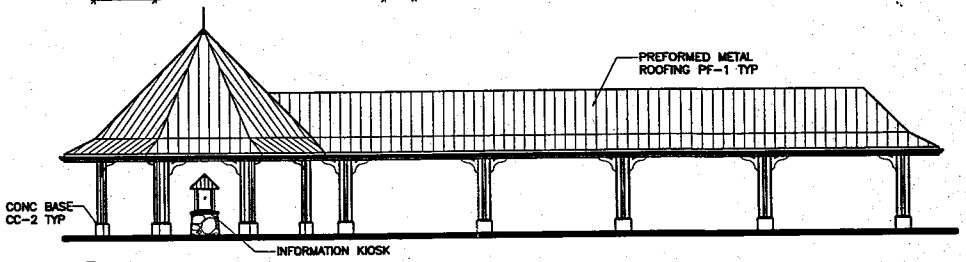
EXHIBIT 15



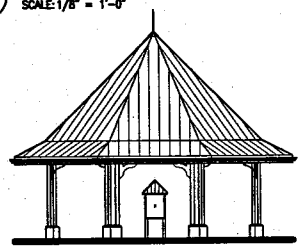
A A1.2 PLAN
SCALE: 1/8" = 1'-0"



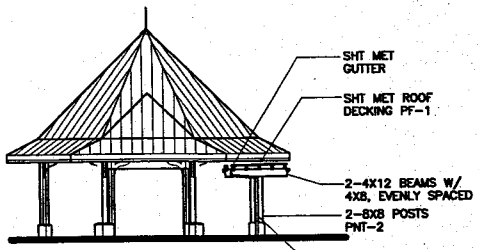
B A1.2 REFLECTED CEILING PLAN
SCALE: 1/8" = 1'-0"



C A1.2 WEST ELEVATION
SCALE: 1/8" = 1'-0"



D A1.2 NORTH ELEVATION
SCALE: 1/8" = 1'-0"



D A1.2 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"

REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPRO

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

MANELE SMALL BOAT HARBOR FERRY SYSTEM IMPROVEMENTS

BOARDING STATION SHELTER PLANS, ELEVATIONS & SECTIONS

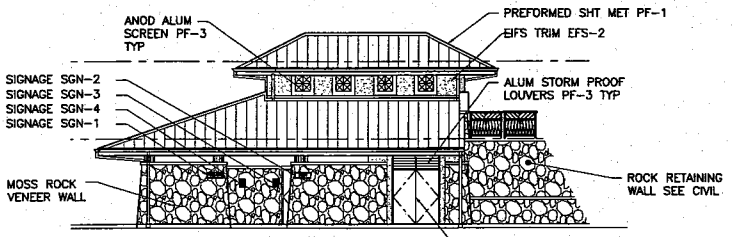
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DESIGNED: JAA	SUBMITTED: –
DRAWN: JC	DATE: JULY, 2005
CHECKED: JAA	SCALE: AS NOTED
APPROVED:	DRAWING N

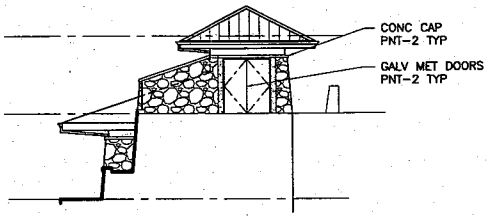
SIGNATURE 4/30/06 Exp. Date of License

CHIEF ENGINEER DATE

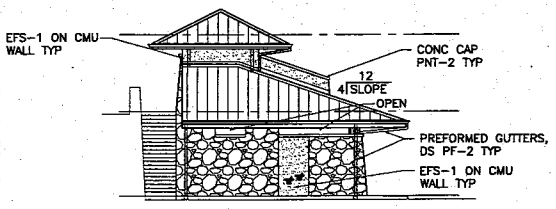
A1.2



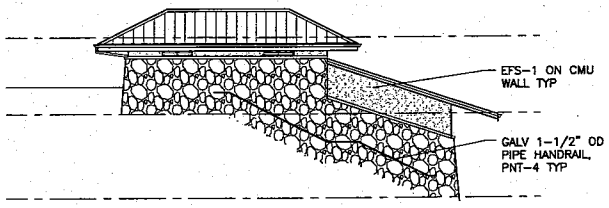
A A1.6 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"



C A1.6 EAST ELEVATION
SCALE: 1/8" = 1'-0"



B A1.6 WEST ELEVATION
SCALE: 1/8" = 1'-0"



D A1.6 NORTH ELEVATION
SCALE: 1/8" = 1'-0"

EXHIBIT 12

REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROV

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

MANELE SMALL BOAT HARBOR FERRY SYSTEM IMPROVEMENTS

COMFORT STATION ELEVATIONS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

SIGNATURE 4/30/06 Exp. Date of License

DESIGNED: JAA	SUBMITTED: –
DRAWN: JC	DATE: JULY, 2005
CHECKED: JAA	SCALE: AS NOTED
APPROVED:	DRAWING NO: A1.6

CHIEF ENGINEER DATE

EXHIBIT 17

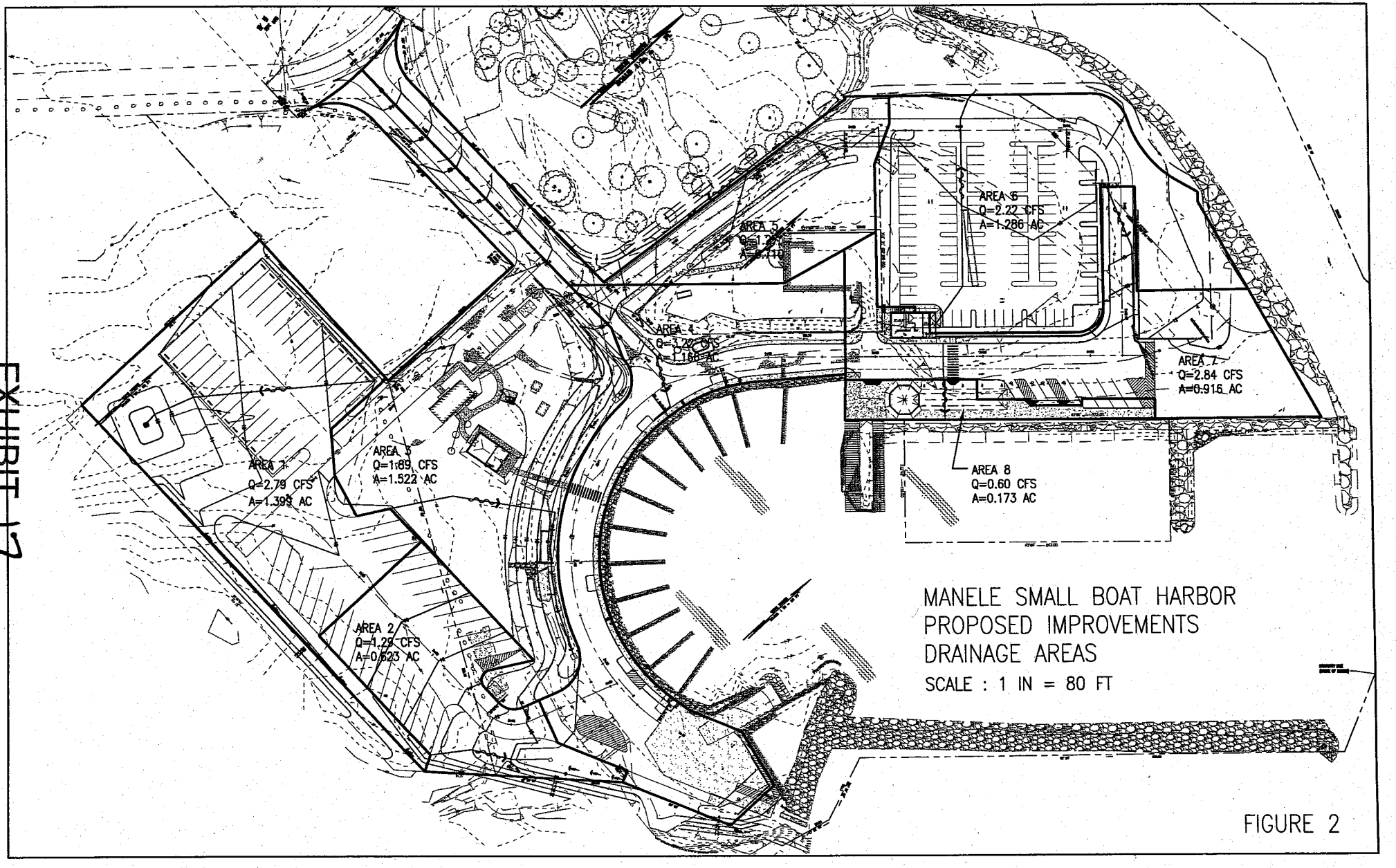
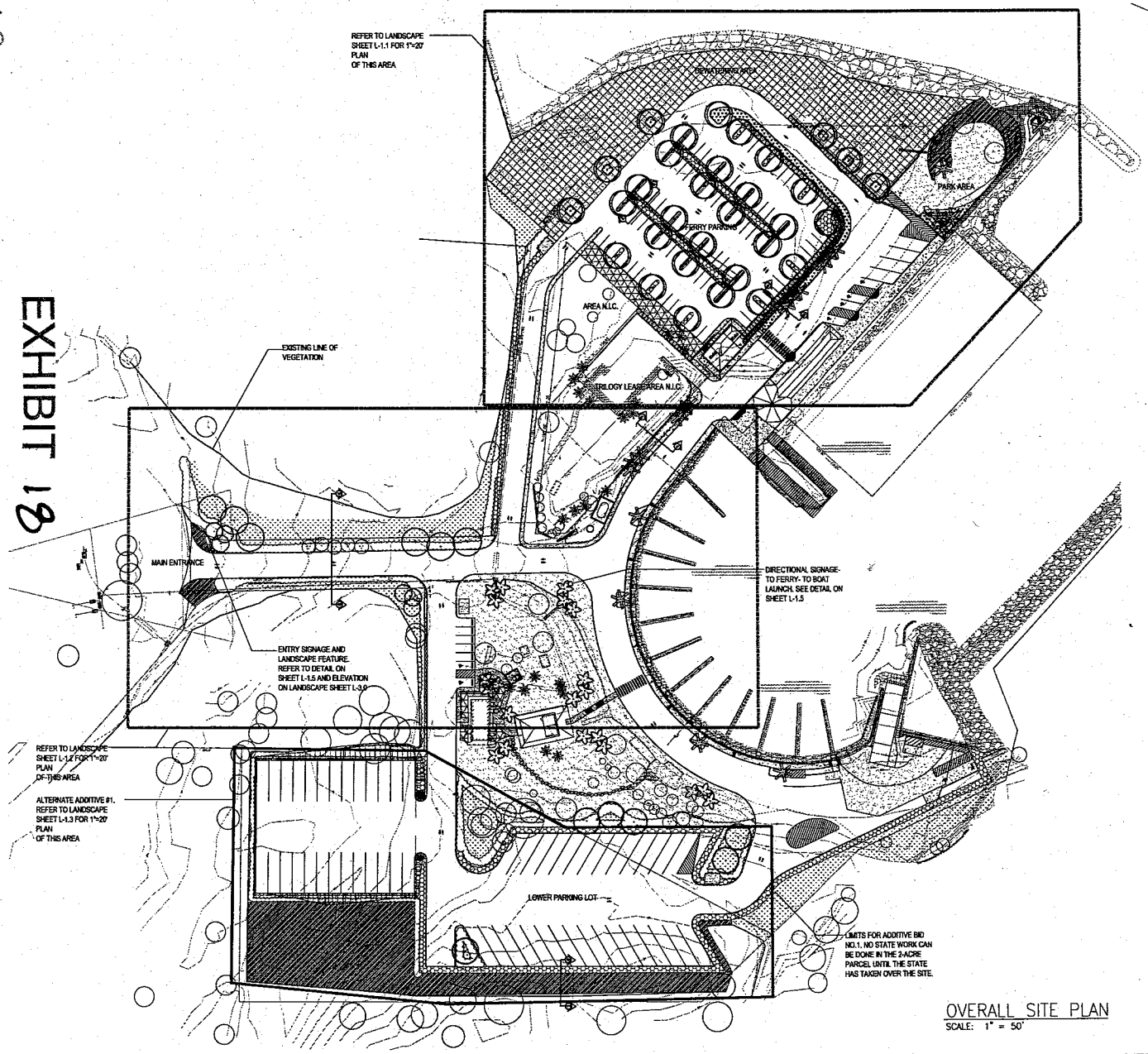


FIGURE 2

EXHIBIT 18



OVERALL SITE PLAN
SCALE: 1" = 50'

NORTH

PLANT SYMBOL LEGEND

GROUNDCOVERS		
	AKI AKI GRASS	SPORBUOLUS VIRGINICUS
	NAIO PAPA	MYOPORUM SANDWICENSE VAR. VERA-ROTUNDIFOLIA
	POHINAHINA	
	SEASHORE PASPALUM	PASPALUM VAGINATUM
TREES		
	EXISTING TREE TO REMAIN	
	KOU	CORDIA SUBCORDATA
	KIAWE	PROSOPIS PALLIDA
	KAMANI	CALOPHYLLUM INOPHYLLUM
	VARIEGATED HAU	HIBISCUS TILIACEUS
	MILO	THESPESIA POPULNEA
SHRUBS		
	BOUGAINVILLEA	BOUGAINVILLEA SP.
	KOKIO ULA	HIBISCUS KOKIO
	NAUPAKA	SCAEVOLA SERICEA
PALMS		
	FIJI FAN PALM	PRITCHARDIA PACIFICA
	MANILA PALM	VEITCHIA MERRILLII
	EXISTING PALM TO REMAIN	
NON-VEGETATIVE GROUNDCOVER		
	4" DEPTH WOOD CHIP MULCH	
	6" DEPTH LAVA STONE RUBBLE	

REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROV

JOHN N. KUROSAWA LICENSED PROFESSIONAL LANDSCAPE ARCHITECT No. 10628 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

04/30/06
SIGNATURE EXPIRATION DATE
HAWAII DESIGN ASSOCIATES, INC.

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

MANELE SMALL BOAT HARBOR FERRY SYSTEM IMPROVEMENTS

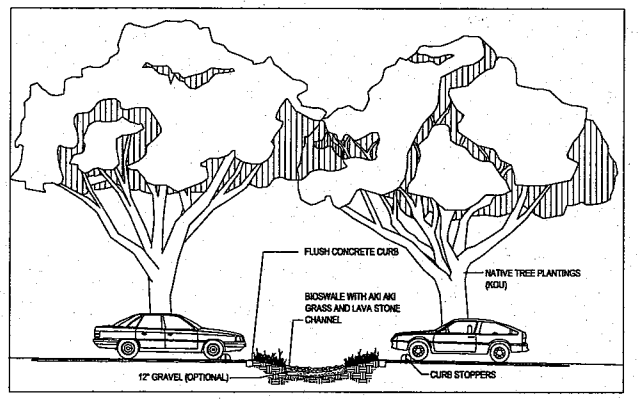
LANDSCAPE PLAN

DESIGNED: PD	SUBMITTED: –
DRAWN: PD	DATE: JULY, 2005
CHECKED: JK	SCALE: AS NOTED
APPROVED:	DRAWING NO L-1.(
CHIEF ENGINEER DATE	

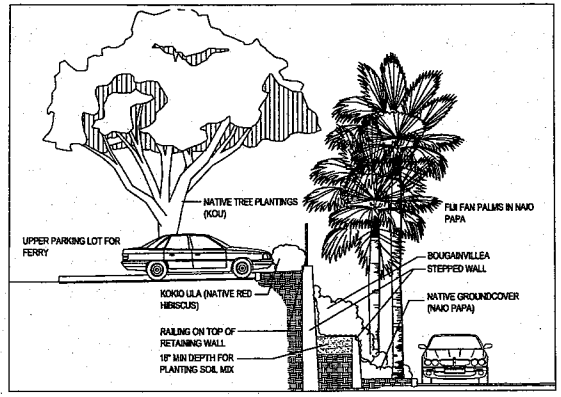
JOB NO. _____ SHEET NO. _____ OF _____ SHEETS

19

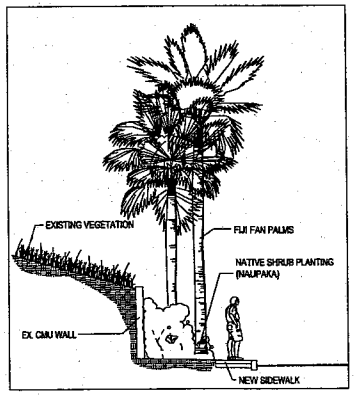
EXHIBIT 19



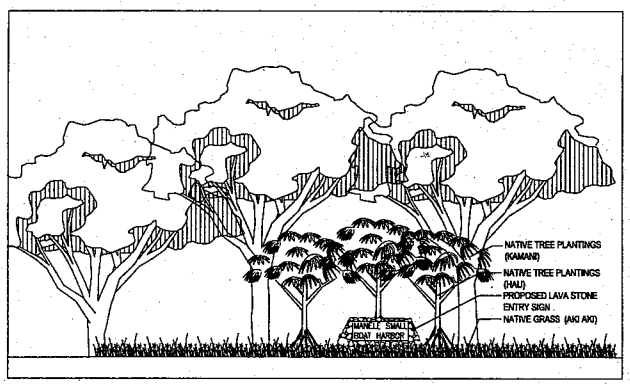
BIOSWALE SECTION A–A
NTS



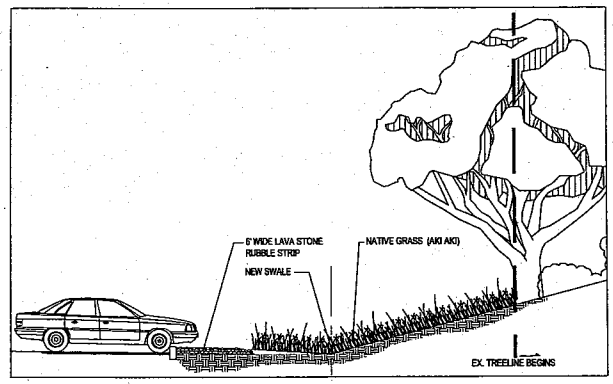
LANDSCAPE SECTION B–B
NTS



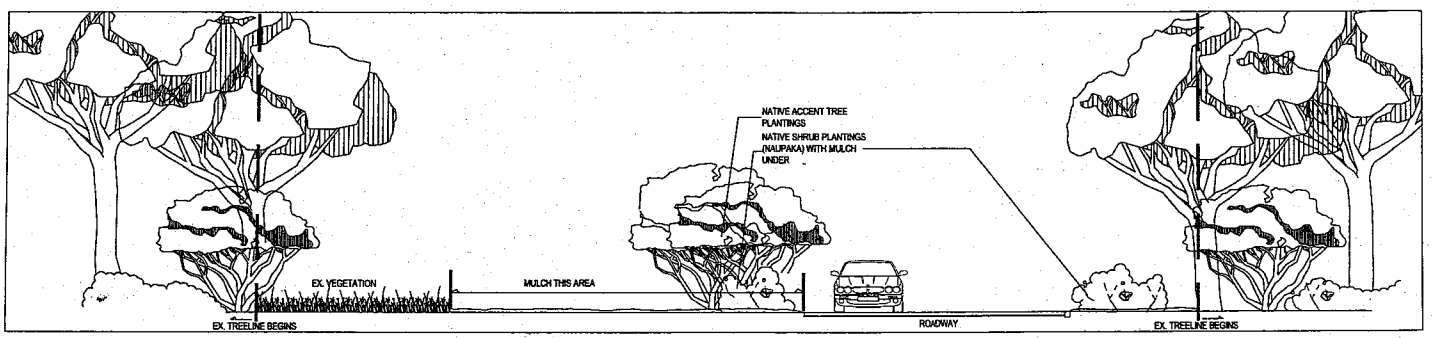
LANDSCAPE SECTION C–C
NTS



ENTRY SIGN ELEVATION
NTS



LANDSCAPE SECTION E–E
NTS



LANDSCAPE SECTION D–D
NTS

REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED

JOEL N. KUROKAWA — LICENSED PROFESSIONAL LANDSCAPE ARCHITECT — No. 1060 — HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

04/30/06
SIGNATURE EXPIRATION DATE
HAWAII DESIGN ASSOCIATES, INC.

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

MANELE SMALL BOAT HARBOR FERRY SYSTEM IMPROVEMENTS

LANDSCAPE SECTIONS

DESIGNED: PD	SUBMITTED: –
DRAWN: PD	DATE: JULY. 2005
CHECKED: JK	SCALE: AS NOTED
APPROVED:	DRAWING NO. L-3.0
CHIEF ENGINEER DATE	

JOB NO. 03MH024 SHEET NO. OF SHEET